



SYSTEM AND METHOD FOR EMBEDDED PROCESSOR FIRMWARE DEVELOPMENT

Dan M. White
Appl. No. 10/748,427
Replacement Sheet

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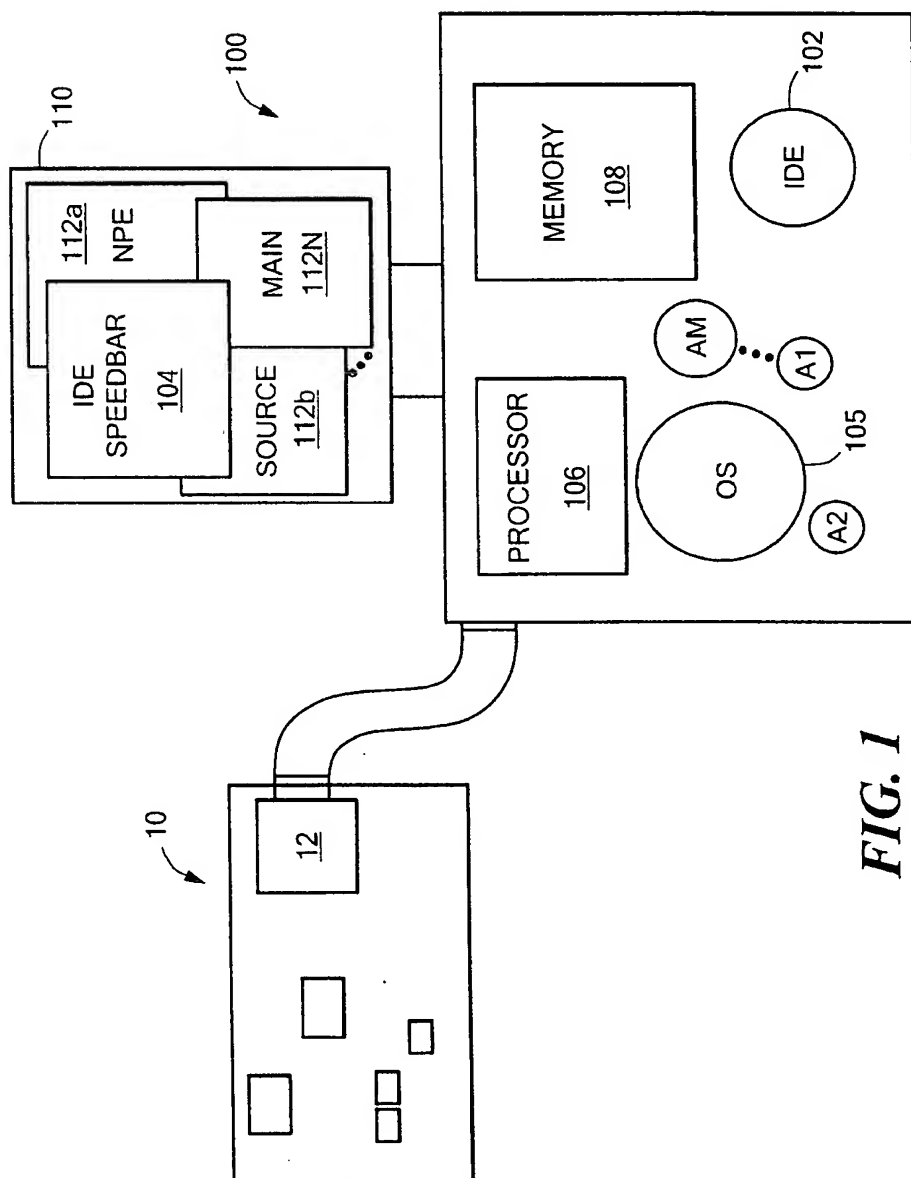


FIG. 1

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FIG. 2

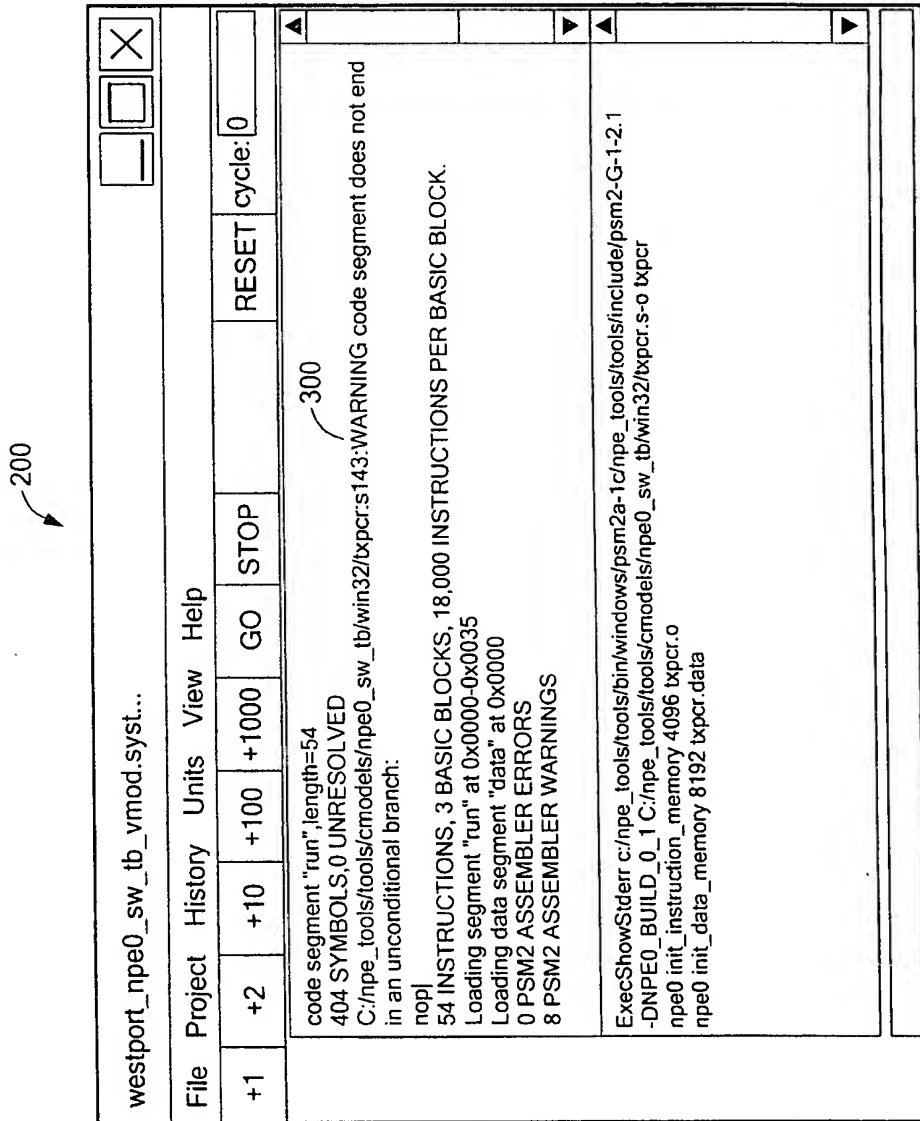


FIG. 3

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txpcr.s
W:/cmodels/npe0_sw_lb/win32/txpcr.s  Step in ctx (F7) +1 (F6) +2 +10 +100 +1000 Go (F5) Stop (F12) Close
000 mov32 d0, #0x4
    .dreg32 xxx = d0
    mov32 xxx, #4
    #include "...\\..\\include\\psm2\\cudjoe_A_psm.h"
    .begin
    .ireg myireg=i2 406
    .pointer myireg @ mypacket.pkthdr2 418
    .dreg32 xxx = d4
    mov32 myireg, #4 410
    mov32 xxx, #8
    .begin
    CodeLabel3 414
    .ireg myireg=i4 408
    nop
    nop &&& LDUR=1
    mov32 d0, ##CodeLabel3
    mov32 myireg, #8 412
    mov32 d0, #4
    .end
    .end
    nop &&& LDUR=1
    mov32 d0, ##ConfigTable2 416 ; Se
    xfrmc [i0, #0 &&& HSS_WrCond
    nop
    nop &&& LDUR=1
    00C nop
    
```

FIG. 4

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PSM data for psma												
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>												
File Irnmem Dmem Debug View Tools												
0x000d 0x1000000b					nop							
0123456789ABCDEF0123456789ABCDEF xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx												
0123456789ABCDEF0123456789ABCDEF0123456789ABCDEF 000000000000000011111111000000000111111111010111000000000000												
Physical registers in psma					Data registers			Index registers				
p0	00000000	p8	00000000	p16	00000000	p24	00000000	d0	00 00 00 00	i0	0000 0000	
p1	00000000	p9	00000000	p17	00000000	p25	00000000	d4	00 00 00 00	i2	0000 0000	
p2	00000000	p10	00000000	p18	00000000	p26	00000000	d8	00 00 00 00	i4	0000 0000	
p3	00000000	p11	00000000	p19	00000000	p27	00000000	d12	00 00 00 00			
p4	00000000	p12	00000000	p20	00000000	p28	00000000	d16	00 00 00 00	i6	0000 0000	
p5	00000000	p13	00000000	p21	00000000	p29	00000000	d20	00 00 00 00			
p6	00000000	p14	00000000	p22	00000000	p30	00000000					
p7	00000000	p15	00000000	p23	00000000	p31	00000000					
Context stack in psma								Context store in psma				
APCtxt	Stext	CZLdur	Slcxt	RepNext	PCJump	PCSTICK		Ctx	Stext	St PC	Cndx	RegMap
00	0	lo, 00 01	0	0	1 000	000	10 1 1	0			00	p0, p2, p4
00	0	off, 00 00	0	0	1 000	000	10 1 1	1	off, 00 000		00	p0 p2 p4
00	0	off, 00 00	0	0	1 000	000	10 1 1	2	off, 00 000		00	p0 p2 p4
00	15	lo, 00 00	0	15	0 000	000	00 1 1	3	off, 00 000		00	p0 p2 p4
PSM control bits: <input checked="" type="checkbox"/> IF <input checked="" type="checkbox"/> IE <input checked="" type="checkbox"/> SCH <input checked="" type="checkbox"/> SO								4	off, 00 000		00	p0 p2 p4
								5	off, 00 000		00	p0 p2 p4
								6	off, 00 000		00	p0 p2 p4
								7	off, 00 000		00	p0 p2 p4
								8	off, 00 000		00	p0 p2 p4
								9	off, 00 000		00	p0 p2 p4
								10	off, 00 000		00	p0 p2 p4
								11	off, 00 000		00	p0 p2 p4
								12	off, 00 000		00	p0 p2 p4
								13	off, 00 000		00	p0 p2 p4
								14	off, 00 000		00	p0 p2 p4
								15	off, 00 000		00	p0 p2 p4

FIG. 5

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|-|W:/cmodels/npe0_sw_tb/win32/txpcr.s
data_label Bar 0x0004
|-|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4
.pkthdr2 0x4 (0x4)=0XXXXXXXXXX
.pkthdr1 0x13 (0x10)=0XXXXXXXXXX
.mp
|-|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket1 46 4
.pkthdr3 0x22 (0x20)=0XXXXXXXXXX
.pkt6
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
.pkthdr4 0x39 (0x38)=0XXXXXXXXXX
.pkt1
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
data_label ConfigTable1(word) 0X50 (0X50)=0FFFFFFF
data_label ConfigTable2(word) 0X68 (0X68)=0FFFFFFF
data_label ConfigTable91(*) (word) 0X0 (0X0)=0X20
data_reg xxx d0(word) (d0)=00 00 00 00
data_reg region53.xxx d4(word) (d4)=00 00 00 00 — 608
index_reg region53.myireg i2 (i2)=0000 0000 — 604
index_reg region53.region58.myireg i4 (i4)=0000 0000 — 606
code_label Codelabel3=0x0003 — 600
code_label end=0x002a — 602
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p9 4 4
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket1 46 4
.pkthdr3 0X0
.pkt6
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
.pkthdr4 0X17
.pkt1
|+|struct W:/smodels/npe0_sw_tb/win32/txpcr.s:p3 8 4
|+|struct W:/cmodels/npe0_sw_tb/win32/txpcr.s:mypacket 76 4
    
```

FIG. 6

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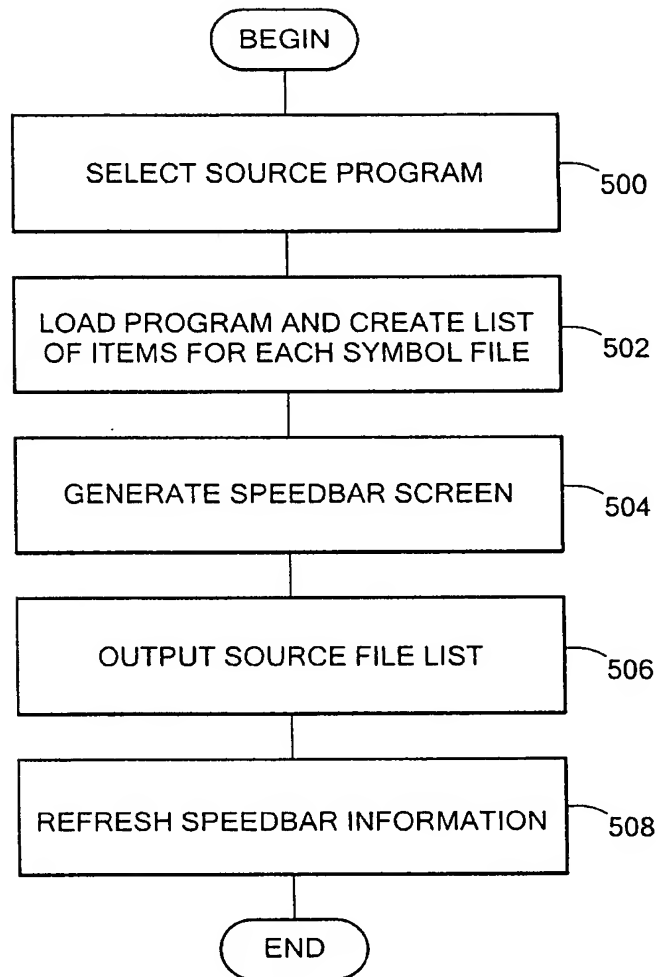


FIG. 7

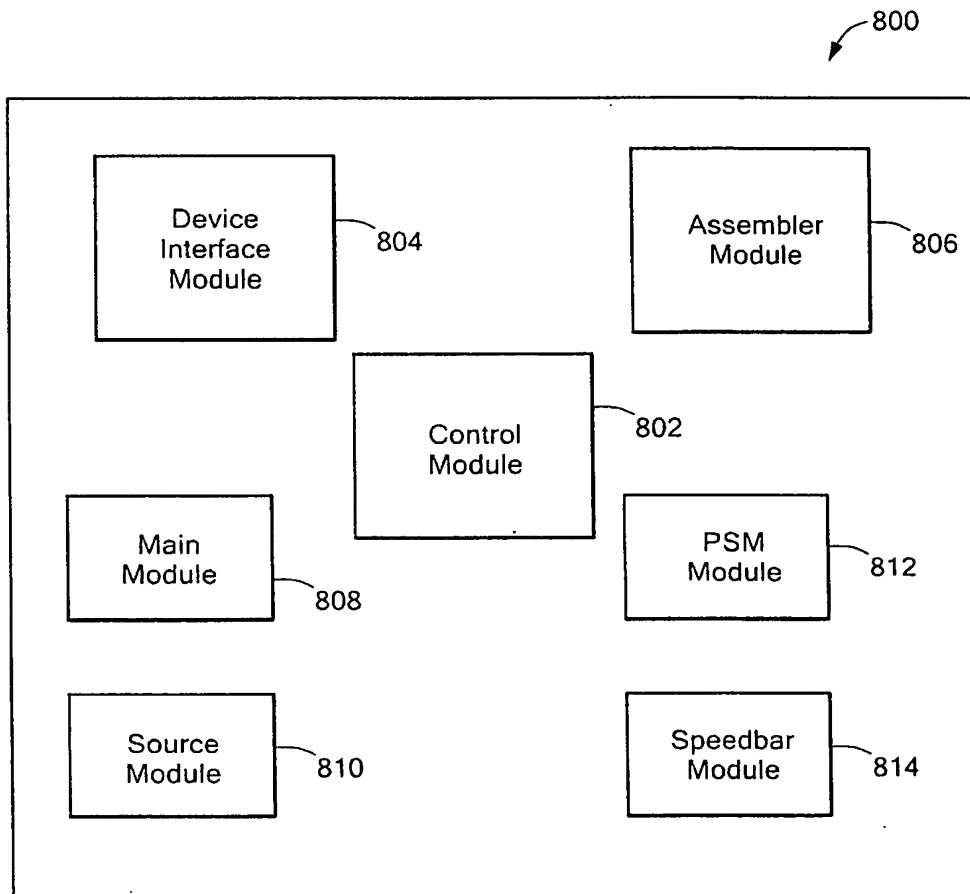


FIG. 8